AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-069

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org

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ANS-069 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 069.01
>From AMSAT HQ SILVER SPRING, MD.
March 10, 2013
To All RADIO AMATEURS
BID: $ANS-069.01

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* Reminder! AMSAT-DC Spring Workshop on Portable Satellite Ground *
* Stations - Saturday, March 23, 2013, at the NASA Goddard Space *
* Flight Center in Greenbelt, MD beginning at 9:00AM EDT. Pre- *
* registration is required. To register call Martha at the AMSAT *
* Office 301-589-6062 no later than Thursday, March 21. Sorry, *
* no late registration at the door! See full details at: *
* http://patkilroy.com/amsat-dc/ *
* *
* The suggested donation for advanced registration and admission *
* for non-AMSAT members is $25. Registration for AMSAT members *
* registering in advance is free. *
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AMSAT Now Preparing for Two Launch Opportunities

AMSAT's focus on STEM education and development of a cubesat platform capable of flying a science mission with a reliable communications link resulted in our previous selection of Fox-1 in the third round and RadFxSat (Fox-1B) in the recent fourth round of NASA's Cubesat Launch Initiative. Actual launch vehicle selections are dependent on the availability of auxiliary payload space and on what orbits are required.

AMSAT VP Engineering Tony Monteiro reports that he has been in conversation with NASA about our orbital preferences/priorities and we're awaiting a response from NASA as to a specific launch selection. In the meantime, the engineering team expects to complete Fox-1 in 2013 and have RadFxSat ready in the 2nd half of 2014 in order to take advantage of launch opportunities that may be offered by NASA.

Fox-1 and the RadFxSat missions are based on similar system architecture. Both satellites:

+ Include a U/V (mode B) FM analog transponder. Its 2 meter down link should be even easier to hear than AO-51.

+ Are designed so you can work it with just a dual-band HT and an "arrow" hand-held antenna.

+ Will send telemetry on the voice downlink in the frequencies below the audible band as low-speed FSK with forward error correction.

+ Will support a high speed digital data mode.

+ A free telemetry decode program, FoxTLM, will be available to decode and display the low-speed telemetry and the high speed data downlink on Fox-1. An update will be provided for RadFxSat.

+ All Fox cubesats are designed to host advanced science payloads to support future science missions that help us to continue qualify for NASA ELaNa (free) launches.

AMSAT President Barry Baines, WD4ASW summarized the Fox cubesat program, "Although we are subject to the same launch constraints as every other satellite builder accepted in the Cubesat Launch Initiative, we will be ready for a launch opportunity when it is offered. As soon as we know when we're manifested that information will be shared with our members."

[ANS thanks the Fox Engineering Team and AMSAT President Barry Baines, WD4ASW for the above information]

AMSAT.ORG Web Site Testing On-Line Now

The web development team, working on the recovery of the AMSAT-NA web at http://www.amsat.org, reports the site is becoming active with testing of the system. As testing proceeds visitors to AMSAT's site will begin to see restoration of prior functionality and introduction of new features where appropriate.

AMSAT VP User Services Gould Smith, WA4SXM said, "Our web team is making good progress in the restoration of popular features our users counted on in the past. This also gives us an opportunity to review some of the older content to prioritize in what order the

system is brought back up."

Although the pages seem sparsely populated at present, soon the entire web presence will assume a new look-and-feel with additional functionality, restored features, background graphics templates and overall look-and-feel. A site map feature is planned for development allowing quick navigation of the site's future multiple features.

Clicking on "SAT STATUS" on the top of the new page will bring you to the Live OSCAR Satellite Status Page which currently resides at http://oscar.dcarr.org/.

The roll-out of the Fox Project web pages can be accessed with a click on the menu bar at the top of the home page.

Gould noted, "With the introduction of AMSAT's new web technology we plan to use a new content management system to roll out important and and breaking satellite news via the web page as soon as our volunteers have the chance to post them." Continuing, Gould said, "We will still maintain our existing distribution via the AMSAT News Service so e-mail subscribers will not need to change anything. The ANS bulletins will still arrive in your in-box once a week."

You are invited to view the prototyping work in-progress on the new AMSAT-NA web. Use the URL http://www.amsat.org. If you have prior cache entries or bookmarks set to www.amsat.org/amsat-new those will no longer work.

[ANS thanks AMSAT VP User Services Gould Smith, WA4SXM and Joe Fitzgerald, KM1P for the above information]

SpaceTrack Approves AMSAT Request for Redistribution of KEPS

AMSAT-NA Orbital Data Manager Ray Hoad, WA5QGD announced this week that AMSAT's request to re-distribute Air Force Space Command (AFSPC) Keplerian elements from SpaceTrack has been approved on March 7 for the period April 1, 2013 to April 1, 2014. Ray wrote, "Thanks to AFSPC, Perry Klein, W3PK and Paul Williamson, KB5MU for their help in this process. Once again, we are 'good to go"' for another year."

[ANS thanks Ray Hoad, WA5QGD for the above information]

Help Wanted: AMSAT News Service Rotating Editor Positions Available

The AMSAT News Service (ANS) is responsible for researching, writing, editing, and publishing the weekly amateur satellite news bulletins.

With the addition of a couple of volunteers this would generally involve taking a turn about every 3 to 4 weeks.

At present we a looking for interested satellite enthusiasts to join the ANS editorial team. Professional writing/editing experience is NOT a requirement. Your interest and enthusiasm in following and reporting on amateur radio in space will get you started! The ANS Editor team helps each other by rounding up items of interest. Plus we receive submitted items for publication ... so you won't be left

all alone!

If you can commit to working on the bulletins for a week on a rotating basis please reply via e-mail to AMSAT News Service Editor Lee McLamb, KU4OS via ku4os at amsat.org.

[ANS thanks AMSAT Vice-President User Services, Gould Smith, WA4SXM for the above information]

Rare Grid Square Opportunities

Antigua and Barbuda

Nikolai Ozerov, VE3NKL plans to operate as V26NK from grid square FK97 in Aruba on daytime SO-50 passes between March 11-16. He will be looking for contacts with North American, Caribbean, Central American, and South American stations depending on the pass.

Mawson Station, Antarctic

Craig Hayhow signing VK0JJJ from Australia's Mawson Base in the Antarctic, 67°36' S 62°52' E, grid MC12kj is reportedly equipped with an Arrow antenna for operating satellites. Craig has also activated the VK0RTM/B 6 meter beacon on 50.300 MHz running at 50 watts. He will also be on the air on HF phone and digital modes. (via Austraila WIA News, March 3)

[ANS thanks Nikolai Ozerov, VE3NKL, and Australia WIA News for the above information]

Plan Ahead for KV1J on Satellites from Island of Miquelon

Eric, KV1J, will once again be operating from the Island of Miquelon (NA-032, DIFO FP-002 WLOTA 1417, Grid GN17) as FP/KV1J between July 6-16th. Activity will include HF and 6M and look for him on the satellites, weather permitting.

[ANS thanks OPDX Bulletin, ARRL DX News for the above information]

NASA-TV Coverage Schedule for ISS Expedition 34 Departure/Landing

Expedition 34 will handover command of the International Space Station on Wednesday, March 13 as Commander Kevin Ford KF5GPP of NASA, Russian Soyuz Commander Oleg Novitskiy and Russian Flight Engineer Evgeny Tarelkin prepare for their return to Earth aboard a Soyuz spacecraft. Landing in Kazakhstan is planned to occur on March 14 at 11:57 PM EDT (UTC-4).

Expedition 35 will begin aboard the station under the command of Chris Hadfield KC5RNJ/VA3OOG of the Canadian Space Agency. Hadfield will be the first Canadian commander. Expedition 35 also includes NASA astronaut Tom Marshburn KE5HOC and Russian cosmonaut Roman Romanenko. In two weeks they will be joined by three additional crew members: NASA astronaut Chris Cassidy and Russian cosmonauts Pavel Vinogradov RV3BS and Alexander Misurkin.

NASA TV has posted the following schedule of events which will be streamed on-line at http:www.nasa.gov/ntv:

(all times are US Eastern Daylight Time EDT or UTC-4)

March 13, Wednesday
5:10 p.m. - ISS Expedition 34/35 Change of Command Ceremony
Ford hands over ISS command to Hadfield

March 14, Thursday
4:45 p.m. - ISS Expedition 34 Farewells and Hatch Closure Coverage
with hatch closure scheduled at 5:15 p.m.
8:15 p.m. - ISS Expedition 34/Soyuz TMA-06M Undocking Coverage
with undocking scheduled at 8:30 p.m.
10:45 p.m. - ISS Expedition 34/Soyuz TMA-06M Deorbit Burn and
Landing Coverage with Deorbit burn scheduled at
11:04 p.m.; landing near Arkalyk, Kazakhstan scheduled
at 11:57 p.m.

March 15, Friday
2 a.m. - Video File of the ISS Expedition 34/Soyuz TMA-06M
Landing and Post-Landing Activities
1:40 p.m. - ISS Expedition 35 VIP Event for the Canadian Space
Agency
2 p.m. - Video File of the ISS Expedition 34/Soyuz TMA-06M
Landing and Post-Landing Activities; scheduled to
include post-landing interview with Expedition 34
Commander Kevin Ford of NASA and the return of
Cosmonauts Oleg Novitskiy and Evgeny Tarelkin to
Chkalovsky Airfield near Star City, Russia.

[ANS thanks NASA for the above information]

SARL National Convention Includes SumbandilaSat Ground Station Visit

The South African Radio League (SARL) 2013 National Convention will open on April 26 with a welcoming function at the West Rand Amateur Radio Club. The SARL Annual General Meeting will be held on Saturday morning April 27. Beginning on March 4, registration forms and program details will be available on http://www.sarl.org.za.

On Saturday afternoon there is a visit to the Hartbeeshoek satellite tracking station where many international satellites are tracked and managed. This also includes a visit to see the SumbandilaSat ground station.

[ANS thanks SARL News, March 3 for the above information]

2013 Amateur Transponder Launch Opportunity Summary

In addition to the AMSAT-NA Fox cubesat launch opportunity announcements several other satellites with amateur radio transponders are expected to launch during 2013. Here is a summary of the upcoming launch plans:

+ A 2013 Yasny Dnepr Launch should have:

  o AMSAT-UK FUNcube-1 435/145 MHz 500mW PEP linear transponder
    and 1200 bps BPSK beacon for educational outreach for a
    planned 600-700km orbit.
  o Delfi n3xT 435/145 MHz linear transponder
  o Triton-1 435/145 MHz single channel FM to DSB transponder
  o Triton-2 435/2408 MHz FM transponder + 435/145 MHz FM to DSB
    transponder
  o CPUT ZACube-1 435/145 MHz FM transponder

+ In 2nd quarter 2013 TURKSAT-3USAT with a 145/435 MHz linear
  transponder (see ANS-069: "May 2013 Launch for TURKSAT-3USAT
  Linear Transponder Cubesat",
  http://amsat.org/pipermail/ans/2013/000694.html)

+ June 2013 Ukube-1 with AMSAT-UK FUNcube boards to provide an
  amateur radio 435/145 MHz linear transponder and a 1200 bps
  BPSK beacon for educational outreach.

[ANS thanks the satellite teams for the above information]

ARISS School Contacts Nearing 800 Mark

This week the total number of ARISS ISS to earth school events (each school counts as one event) is 797.

Prince Edward Island, Canada

A successful ARISS contact was completed with the Stonepark Intermediate School, Charlottetown, Prince Edward Island, Canada, on Thursday, March 7. The contact was be direct between NA1SS and VY2PEI.

Grade 9 students at Stonepark Intermediate, Charlottetown, PEI preparing for their contact with the International Space Station through a number of in class activities, research and guest speakers. In the past three months they researched life on the ISS and watched YouTube segments of various facets of the ISS. Any news stories featuring Chris Hadfield and the ISS were read and discussed. The students attended sessions by a local university professor of engineering who worked for NASA and local amateur radio operators. Both sessions gave students insight into the workings ISS, NASA and the ham radio.

France

A successful ARISS contact was completed with the Lyc?e Polyvalent Anatole France, Cedex, France on March 9. The contact was direct between OR4ISS and F4KIS.

Anatole France is a French high school located in Lillers, a small town in the center of the Pas-de-Calais department. There are about 850 students aged between 15 and 20 years old. The science teachers and the local amateur radio club F6KIS, which became in 2010 the "Artois Lys Radio Club", have developed a partnership since 2007 collaborating on projects to send sounding balloons into the stratosphere. This year, they are working with a group of students to contact the ISS. The students are preparing the TPE project for their final exam. They need to define the subject of their research, find information about it and run experiments over a period of six months in order to give an oral presentation of their work in front of a

jury.

ARISS Contacts Planned for Coming Week

Monday, March 9: Valley Manor School, Martensville, SK, Canada, direct via VE5RAC at 19:23:56 UTC 34 deg.

Tuesday, March 12: Mt. Ousley Public School, Fairy Meadow, NSW, Australia, telebridge via IK1SLD at 07:35:42 UTC 44 deg. For listeners in the Wollongong and Sydney area, the historic event will be relayed onto the VK 2 RMP repeater on 6850 at Maddens Plains. For interstate or overseas listeners, the event will be relayed onto IRLP Node 9010 and on Echolink via the AMSAT Conference Bridge.

ARISS is requesting listener reports for this contact. Due to issues with the Kenwood radio that are not fully understood at present, the Ericsson radio is going to be used for this contact. ARISS thanks everyone in advance for their assistance. Due to continuing Space X operations, the above times are subject to last minute changes or cancellations.

[ANS thanks ARISS for the above information]

NASA Summer 2013 Internship Applications Close on March 15

The NASA One Stop Shopping Initiative, or OSSI, strives to provide students at all institutions of higher education access to a portfolio of internship, fellowship and scholarship opportunities offered by NASA mission directorates and centers.

Visit the Office of Education Infrastructure Division LaunchPad to find information on internship, fellowship and scholarship opportunities. The site features the OSSI online application for recruiting NASA Interns, Fellows and Scholars, or NIFS. This innovative system allows students to search and apply for all types of higher-education NASA internship, fellowship and scholarship opportunities in one location. A single application places the student in the applicant pool for consideration by all NASA mentors.

Applications for summer 2013 opportunities are due March 15, 2013.

To find available opportunities and to fill out an OSSI online application for recruiting NIFS, visit https://intern.nasa.gov/index.html.

Inquiries about the OSSI should be submitted via https://intern.nasa.gov/oic/.

[ANS thanks NASA Education Express Message, March 7, 2013 for the above information]

Microsoft Blocking arrl.net and arrl.org E-mail Addresses

The ARRL IT staff has been notified that Microsoft is blocking e-mail to the more than 20,000 members who use the arrl.net e-mail

forwarding service to forward e-mail to Microsoft domains (hot-
mail.com, msn.com, live.com and outlook.com). In addition, the
blockage is also affecting those members of the ARRL's Field
Organization and other ARRL volunteers who use an arrl.org alias
e-mail address to have e-mail delivered to an address with a Micro-
soft domain. According to ARRL Information Technology Manager
Michael Keane, K1MK, the IT staff is working to have these blocks
lifted and e-mail delivery restored to normal operation as quickly
as possible.

[ANS thanks the ARRL Letter March 7, 2013 for the above information]

Satellite Shorts From All Over

+ Mike Rupprecht DK3WN has produced a summary of all active amateur
  radio satellites with frequencies and links to more detailed
  information. See: http://www.dk3wn.info/p/?page_id)535

+ Here is another one of the outstandingly cool time-lapse photo-
  graphy-videos from the ISS: http://tinyurl.com/cool-ISS-video
 (youtube)

+ SpaceRef.com posted video of the March 4 SpaceX Dragon docking
  with the International Space Station:
  http://tinyurl.com/SpaceRef-Dragon-Docking (SpaceRef.com)

+ AMSAT-UK gets nice recognition in this article about STRaND-1:
  http://spaceref.com/news/viewpr.html?pid@267

+ The on-line CQ Newsroom posted news of amateur radio participation
  during the recent Plasma Shadowing Experiment aboard the ISS. This
  story and other amateur radio news can be read at:
  http://cqnewsroom.blogspot.com/

+ The VHF Plus column by Joe Lynch, N6CL in the March 2013 CQ Maga-
  zine discusses the Fox-1 satellite (pages 78-79).

+ This coming week is the best time to watch for the Comet PanSTARRS.
  Viewing information and diagrams are posted at:
  http://www.skyandtelescope.com/letsgo/whatsuptonight/194257261.html

+ HAM RADIO 2013 Convention, organized by Deutscher Amateur Radio
  Club will take place from Friday, June 28 through Sunday, June 30,
  2013 in Friedrichshafen, Germany.

[ANS thanks everyone for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students

enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information. And with that please keep in mind when in 1987 Ivan Sutherland, when asked "How could you possibly have done the first interactive graphics program, the first non-procedural programming language, the first object-oriented software system, all in one year?" ... replied, "Well, I didn't know it was hard."

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM